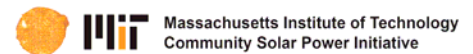

MIT Community Solar Power Initiative

Action	Installation and use of 25 photovoltaic systems.
Location	MIT Cambridge campus and homes and schools in Cambridge and surrounding communities.
Date	October 2002 to November 2005



About the University

MIT is a world-class academic institution with the mission of educating and conducting research in science, technology, and other areas of scholarship that will serve the nation and the world in the 21st century. MIT is committed to environmental stewardship through taking actions to minimize its impacts and providing educational opportunities to advance the understanding and technology required for long-term sustainability.

What They Did

Motivation	This project was pursued to demonstrate MIT's commitment to renewable energy and community engagement around environmental stewardship. Photovoltaic panels provide a high-profile tool for outreach, research, and diversified energy management.
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Project Goals

- Promote sustainable energy options on MIT's campus and in the community.
- Facilitate power research and education at MIT.
- Foster development of Massachusetts solar power markets and businesses.
- Create MIT campus and community awareness of and demand for renewable energy.
- Reduce MIT's GHG emissions footprint.

Key Players

- The Massachusetts Technology Collaborative provided a \$455,701 incentive grant to support this project.
- MIT's Department of Facilities worked with the Laboratory for Energy and the Environment (LFEE) to develop and implement the project.
- Private sector partners included Solectria Renewables, Zapotec Energy, Heliotronics, Conservation Services Group, Evergreen Solar, and RWE Schott Solar.
- Community members receiving PV installations included residents; non-profit organizations; and schools in Andover, Cambridge, Brockton, Lexington, Natick, Watertown, and Waltham.

Actions

- Installed three PV systems on MIT's campus: Hayden Library, the MIT Museum and the Stratton Student Center.
- Installed twenty-two PV systems on residential homes, local businesses and schools.
- Providing on-going tours and technology demonstrations to students and Cambridge community to build awareness, understanding, and feasibility of PV technology.
- Providing research and education platform for students and faculty.

Results

Twenty-five PV systems were installed through the project for a combined capacity of 75 kilowatts of electricity from renewable solar energy rather than traditional fossil fuels; 8 systems totaling about 30 kilowatts were installed in Cambridge. The estimated annual production for all the systems is over 94,000 kWh, or enough power to light 75 homes. This translates to an annual GHG reduction of 55 metric tons of CO₂, about the same as removing 8 passenger cars from the road. Additionally, by avoiding the use of fossil fuels, regional air pollution (SO₂, NO_x, mercury) is reduced, helping to alleviate adverse health and environmental impacts.

Other Benefits

- Promoted local solar power system markets.
- Advanced new PV panel mounting and power electronics technologies.
- Built local capacity and awareness of power grid interconnections for renewable systems.

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